Ms. Karen M. Klusman
ALCOA, Inc. - Warrick Operations
P.O. Box 10
Newburgh, Indiana 47629-0010

Re: Significant Source Modification No:
173-11342-00007

Dear Ms. Klusman:

ALCOA, Inc. - Warrick Operations applied for a Part 70 operating permit on September 19, 1996 for an aluminum production foundry. An application to modify the source was received on September 13, 1999. Pursuant to 326 IAC 2-7-10.5(h) the following emission units are approved for construction and operation at the source:

The following system will replace the existing alumina handling system, consisting of bucket elevators and alumina conveyor transfer station baghouse (DC-24):

Alumina Handling System:

(1) The following emission units exhausting to Dust Collector 112A.1:
- (a) Enriched Alumina Truck Unloading (BL-08), with a maximum capacity of 60,000 pounds per hour;
- (b) Enriched Alumina Tank 151A Distribution Box (FM-15), with a maximum capacity of 200,000 pounds per hour;
- (c) Enriched Alumina Tank 151B Distribution Box (FM-16), with a maximum capacity of 200,000 pounds per hour;
- (d) Enriched Alumina Tank 151A Distribution Airslide (FM-13), with a maximum capacity of 160,000 pounds per hour;
- (e) Enriched Alumina Tank 151B Distribution Airslide (FM-14), with a maximum capacity of 160,000 pounds per hour;
- (f) Enriched Alumina Central Distribution Box (FM-12), with a maximum capacity of 160,000 pounds per hour;
- (g) Enriched Alumina B3/B4/B5/B6 Airslide (FM-11), with a maximum capacity of 160,000 pounds per hour;
- (h) Enriched Alumina Dense Phase Transporter (VS-01), with a maximum capacity of 14,000 pounds per hour;
- (i) Fresh Alumina Airslide (FM-01), with a maximum capacity of 200,000 pounds per hour;
- (j) Fresh Alumina Airslide (FM-02), with a maximum capacity of 200,000 pounds per hour;
- (k) Fresh Alumina Airlift (AE-01), with a maximum capacity of 200,000 pounds per hour;
- (l) Fresh Alumina Airlift (AE-02), with a maximum capacity of 200,000 pounds per hour

(2) The following emission units exhausting to Dust Collector 151.1:
- (a) B3/B4/B5/B6 Alumina Airlift Feed Box (FM-08), with a maximum capacity of 160,000 pounds per hour;
- (b) B3/B4/B5 Alumina Airslide (FM-06), with a maximum capacity of 120,000 pounds per hour;
- (c) B3/B4 Alumina Airslide (FM-04), with a maximum capacity of 80,000 pounds per hour;
- (d) B3/B4 Alumina Airslide (FM-03), with a maximum capacity of 80,000 pounds per hour;
- (e) B5 Vibrating Screen (SC-01), with a maximum capacity of 40,000 pounds per hour;

(f) B5 Alumina Airlift (AE-04), with a maximum capacity of 40,000 pounds per hour;
(g) B5 Alumina Airslide (FM-07), with a maximum capacity of 40,000 pounds per hour;
(h) B6 Alumina Vibrating Screen (SC-02), with a maximum capacity of 40,000 pounds per hour;
(i) B6 Alumina Airlift (AE-03), with a maximum capacity of 40,000 pounds per hour;
(j) B6 Alumina Airslide (FM-05), with a maximum capacity of 40,000 pounds per hour

The proposed Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for extension (3-8396), or dial (317) 233-8396.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
kt
cc: File - Warrick County
U.S. EPA, Region V
Warrick County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Dick Sekula
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

ALCOA, Inc. - Warrick Operations
Junction State Routes 61 & 66
Newburgh, Indiana 47629

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 173-11342-00007	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates an aluminum production foundry.

Responsible Official:	Mr. Melvin W. Lager, Jr.
Source Address:	Junction State Routes 61 & 66, Newburgh, Indiana 47629
Mailing Address:	P.O. Box 10, Newburgh, Indiana 47629-0010
Phone Number:	(812) 853-6111
SIC Code:	3334, 3352
County Location:	Warrick
County Status:	Attainment for all criteria pollutants ; Unclassifiable for SO2
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

Alumina Handling System:

(1) The following emission units exhausting to Dust Collector 112A.1:
- (a) Enriched Alumina Truck Unloading (BL-08), with a maximum capacity of 60,000 pounds per hour;
- (b) Enriched Alumina Tank 151A Distribution Box (FM-15), with a maximum capacity of 200,000 pounds per hour;
- (c) Enriched Alumina Tank 151B Distribution Box (FM-16), with a maximum capacity of 200,000 pounds per hour;
- (d) Enriched Alumina Tank 151A Distribution Airslide (FM-13), with a maximum capacity of 160,000 pounds per hour;
- (e) Enriched Alumina Tank 151B Distribution Airslide (FM-14), with a maximum capacity of 160,000 pounds per hour;
- (f) Enriched Alumina Central Distribution Box (FM-12), with a maximum capacity of 160,000 pounds per hour;
- (g) Enriched Alumina B3/B4/B5/B6 Airslide (FM-11), with a maximum capacity of 160,000 pounds per hour;
- (h) Enriched Alumina Dense Phase Transporter (VS-01), with a maximum capacity of 14,000 pounds per hour;
- (i) Fresh Alumina Airslide (FM-01), with a maximum capacity of 200,000 pounds per hour;
- (j) Fresh Alumina Airslide (FM-02), with a maximum capacity of 200,000 pounds per hour;
- (k) Fresh Alumina Airlift (AE-01), with a maximum capacity of 200,000 pounds per hour;
- (l) Fresh Alumina Airlift (AE-02), with a maximum capacity of 200,000 pounds per hour

(2) The following emission units exhausting to Dust Collector 151.1:
- (a) B3/B4/B5/B6 Alumina Airlift Feed Box (FM-08), with a maximum capacity of 160,000 pounds per hour;
- (b) B3/B4/B5 Alumina Airslide (FM-06), with a maximum capacity of 120,000 pounds per hour;
- (c) B3/B4 Alumina Airslide (FM-04), with a maximum capacity of 80,000 pounds per hour;
- (d) B3/B4 Alumina Airslide (FM-03), with a maximum capacity of 80,000 pounds per hour;
- (e) B5 Vibrating Screen (SC-01), with a maximum capacity of 40,000 pounds per hour;
- (f) B5 Alumina Airlift (AE-04), with a maximum capacity of 40,000 pounds per hour;
- (g) B5 Alumina Airslide (FM-07), with a maximum capacity of 40,000 pounds per hour;
- (h) B6 Alumina Vibrating Screen (SC-02), with a maximum capacity of 40,000 pounds per hour;
- (i) B6 Alumina Airlift (AE-03), with a maximum capacity of 40,000 pounds per hour;
- (j) B6 Alumina Airslide (FM-05), with a maximum capacity of 40,000 pounds per hour

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the

Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said
items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP:s shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management

100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the Aresponsible official@ as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Testing Requirements [326 IAC 2-7-6(1)]

C.6 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall notify IDEM, OAM of the actual test date at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.7 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

All monitoring and record keeping requirements not already legally required shall be implemented upon permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.8 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consisting of whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates, by reference, information contained in other documents, the Permittee shall identify, as part of the compliance monitoring plan, the documents in which the information is found. The elements of the compliance monitoring are:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRPs shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within Anormal@ parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.9 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.10 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.11 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this approval;

(2) All data, electronic or otherwise, for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.12 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)](The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)
Alumina Handling System:

(1) The following emission units exhausting to Dust Collector 112A.1:

- (a) Enriched Alumina Truck Unloading (BL-08), with a maximum capacity of 60,000 pounds per hour;
- (b) Enriched Alumina Tank 151A Distribution Box (FM-15), with a maximum capacity of 200,000 pounds per hour;
- (c) Enriched Alumina Tank 151B Distribution Box (FM-16), with a maximum capacity of 200,000 pounds per hour;
- (d) Enriched Alumina Tank 151A Distribution Airslide (FM-13), with a maximum capacity of 160,000 pounds per hour;
- (e) Enriched Alumina Tank 151B Distribution Airslide (FM-14), with a maximum capacity of 160,000 pounds per hour;
- (f) Enriched Alumina Central Distribution Boc (FM-12), with a maximum capacity of 160,000 pounds per hour;
- (g) Enriched Alumina B3/B4/B5/B6 Airslide (FM-11), with a maximum capacity of 160,000 pounds per hour;
- (h) Enriched Alumina Dense Phase Transporter (VS-01), with a maximum capacity of 14,000 pounds per hour;
- (i) Fresh Alumina Airslide (FM-01), with a maximum capacity of 200,000 pounds per hour;
- (j) Fresh Alumina Airslide (FM-02), with a maximum capacity of 200,000 pounds per hour;
- (k) Fresh Alumina Airlift (AE-01), with a maximum capacity of 200,000 pounds per hour;
- (l) Fresh Alumina Airlift (AE-02), with a maximum capacity of 200,000 pounds per hour.

(2) The following emission units exhausting to Dust Collector 151.1:

- (a) B3/B4/B5/B6 Alumina Airlift Feed Box (FM-08), with a maximum capacity of 160,000 pounds per hour;
- (b) B3/B4/B5 Alumina Airslide (FM-06),with a maximum capacity of 120,000 pounds per hour;
- (c) B3/B4 Alumina Airslide (FM-04), with a maximum capacity of 80,000 pounds per hour;
- (d) B3/B4 Alumina Airslide (FM-03), with a maximum capacity of 80,000 pounds per hour;
- (e) B5 Vibrating Screen (SC-01), with a maximum capacity of 40,000 pounds per hour;
- (f) B5 Alumina Airlift (AE-04), with a maximum capacity of 40,000 pounds per hour;
- (g) B5 Alumina Airslide (FM-07), with a maximum capacity of 40,000 pounds per hour;
- (h) B6 Alumina Vibrating Screen (SC-02), with a maximum capacity of 40,000 pounds per hour;
- (i) B6 Alumina Airlift (AE-03), with a maximum capacity of 40,000 pounds per hour;
- (j) B6 Alumina Airslide (FM-05), with a maximum capacity of 40,000 pounds per hour.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3]
The particulate matter (PM) from the alumina handling system shall be limited by the following: Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

D.1.2 PSD Minor Limit [326 IAC 2-2[[40 CFR 52.21]
The alumina handling system shall be limited to 24.0 tons of PM and 14.0 tons of PM_{10}. This limit is required to limit the potential to emit of PM_{10} to less than 25.0 tons of PM and 15.0 tons of PM_{10} per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.5 Particulate Matter (PM)
The baghouses for PM control shall be in operation and control emissions from the alumina handling system at all times that the alumina handling system is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.6 Bag Leak Detection
The facility must install and operate a bag leak detection system. Upon installation of a triboelectric bag leak detection system, the Permittee must operate the detection system pursuant to U.S. EPA guidance entitled Fabric Filter Bag Leak Detection Guidance (dated 1997 September). This document is available from the US EPA, Office of Air Quality Planning and Standards, Monitoring and Analysis Division, Emissions Measurement Center (MD-18), Research Triangle Park, NC 27711. Other bag leak detection systems must be installed, operated, calibrated and maintained in accordance with the manufacturers written specifications.

If the bag leak detection system is inoperable, the facility shall conduct visible emission notations according to the following procedures, until the bag leak detection system is operable:

(a) Daily visible emission notations of the baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shutdown time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) At startup of the process, an employee shall be considered trained if he has received instruction on the operation of the source and the control equipment. After one month of operation of the process, an employee shall be considered a trained employee if the employee has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records of the bag leak detection system output, or, as appropriate, of the daily visible emission notations of the baghouse stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) Documentation of all response steps implemented, per event; and
(2) Operator standard operating procedures (SOP).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: ALCOA, Inc. - Warrick Operations
Source Address: Junction State Routes 61 & 66, Newburgh, Indiana 47629
Mailing Address: P.O. Box 10, Newburgh, Indiana 47629-0010
Source Modification No.: 173-11342-00007

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

ALCOA Inc. - Warrick Operations
P.O. Box 10
Newburgh, Indiana 47629-0010

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that ALCOA Inc. - Warrick Operations, Junction State Routes 61 & 66, Newburgh, Indiana 47629, has constructed the alumina handling system in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on September 13, 1999 and as permitted pursuant to **Significant Source Modification No. 173-11342, Plant ID No. 173-00007** issued on _____.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 19 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for a Part 70 Significant Source Modification

Source Name:	ALCOA, Inc. - Warrick Operations
Source Location:	Junction State Routes 61 & 66, Newburgh, Indiana 47629-0010
County:	Warrick
SIC Code:	3334, 3352
Operation Permit No.:	T173-6627-00007
Operation Permit Issuance Date:	not issued yet
Significant Source Modification No.:	173-11342-00007
Permit Reviewer:	Kimberly Titzer

On November 4, 1999, the Office of Air Management (OAM) had a notice published in the *Boonville Standard*, Boonville, Indiana, stating that ALCOA Inc. - Warrick Operations had applied for a Part 70 Operating Permit to construct and operate an Alumina Handling System. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 6, 1999, ALCOA Inc. - Warrick Operations submitted comments on the proposed Significant Source Modification permit. The summary of the comments is as follows:

Comment 1: In A.1, please change Mr. Lager=s telephone number to (812) 853-6111.

Response 1: The following change has been made to the permit to clarify the correct phone number as follows:

Phone Number: **(812) 853-6111** ~~(812) 853-1519~~

Comment 2: In C.2(a), the language must be changed to read A....the Permittee shall prepare and maintain Preventative Maintenance Plans (PMP) with ninety days after **commencement of operation**,**Y@** It is impossible for a source to identify the items stipulated before some experience is gained with the new equipment.

Response 2: Since the units are new units, the source should prepare and maintain the PMP within 90 days of permit issuance, not 90 days after commencement of operation. There was no change made to the permit as a result of this comment.

Comment 3: In C.7(a) [now C.6(a)] last sentence, the sentence must be rewritten to the following, which has been agreed to in previous settlement discussions on another construction permit:

The Permittee shall notify IDEM, OAM ~~submit a notice~~ of the actual test date ~~to the above address so that it is received~~ at least two weeks prior to the test date.

Response 3: The above change shall be made to the permit.

Comment 4: In C.7 the first paragraph, this paragraph must be rewritten to the following, which has been agreed to in previous settlement discussions on another construction permit:

Compliance with applicable requirements shall be documented as required by this approval. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after ***initial startup*** ~~receipt of this approval~~. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Response 4: The following changes have been made to the permit, pursuant to the Compliance Assurance Monitoring final rule (40 CFR 64.7):

~~Compliance with applicable requirements shall be documented as required by this approval.~~ **All monitoring and record keeping requirements not already legally required shall be implemented upon permit issuance. If required by Section D, the** ~~The~~ Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment~~, no more than ninety (90) days after receipt of this approval~~. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule **related to the equipment** an additional ninety (90) days provided the Permittee notifies:

Comment 5: C.9 seems to missing.

Response 5: The numbering of Section C shall be changed.

Comment 6: In C.10 (Pressure Gauge Specifications), no regulation providing OAM-IDEM the ability to stipulate the requirements of this section is given or known the Alcoa. This section must be removed. In addition, Alcoa is not certain that 1) pressure gauges are available that meet this accuracy and 2) the necessity of such a tolerance. Pressure drop is a very gross indicator of baghouse performance, thus the need to be that accurate, if you even can, seems overkill in the extreme.

Response 6: The type of baghouses to be installed for the airlift alumina operations require a triboelectric bag leak detection system to also be installed. Negotiations from a previous permit with the same equipment have resulted in the revision of several permit conditions. The following changes have been made to the permit as a result of the type of equipment to be used:

~~C.10 Pressure Gauge Specification~~

~~Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.~~

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

~~D.1.6 Visible Emissions Notations~~

~~(a) Daily visible emission notations of the baghouse stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.~~

~~D.1.7 Parametric Monitoring~~

~~The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the alumina handling system, at least once weekly when the alumina handling system is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.~~

~~The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.~~

~~D.1.8 Baghouse Inspections~~

~~An inspection shall be performed each calender quarter of all bags controlling the alumina handling system when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.~~

~~D.1.9 Broken or Failed Bag Detection~~

~~In the event that bag failure has been observed:~~

~~(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

D.1.6 **Bag Leak Detection**

The facility must install and operate a bag leak detection system. Upon installation of a triboelectric bag leak detection system, the Permittee must operate the detection system pursuant to U.S. EPA guidance entitled Fabric Filter Bag Leak Detection Guidance (dated 1997 September). This document is available from the US EPA, Office of Air Quality Planning and Standards, Monitoring and Analysis Division, Emissions Measurement

Center (MD-18), Research Triangle Park, NC 27711. Other bag leak detection systems must be installed, operated, calibrated and maintained in accordance with the manufacturers written specifications.

If the bag leak detection system is inoperable, the facility shall conduct visible emission notations according to the following procedures, until the bag leak detection system is operable:

(a) Daily visible emission notations of the baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shutdown time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) At startup of the process, an employee shall be considered trained if he has received instruction on the operation of the source and the control equipment. After one month of operation of the process, an employee shall be considered a trained employee if the employee has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

~~D.1.10 Record Keeping Requirements~~

~~(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the baghouse stack exhausts.~~

~~(b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:~~

~~(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:~~

~~(A) Inlet and outlet differential static pressure; and~~

~~(B) Cleaning cycle: frequency and differential pressure~~

~~(2) Documentation of all response steps implemented, per event .~~

~~(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.~~

~~(4) Quality Assurance/Quality Control (QA/QC) procedures.~~

~~(5) Operator standard operating procedures (SOP).~~

~~(6) Manufacturer's specifications or its equivalent.~~

~~(7) Equipment "troubleshooting" contingency plan.~~

~~(8) Documentation of the dates vents are redirected.~~

~~(c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.~~

~~(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records of the bag leak detection system output, or, as appropriate, of the daily visible emission notations of the baghouse stack exhaust.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) Documentation of all response steps implemented, per event; and
(2) Operator standard operating procedures (SOP).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 7: In C.11 [now C.8], **All** {emphasis added} of 326 IAC 1-6 has been superseded by 326 IAC 2-7-16(d), therefore it cannot be referenced as an applicable regulation.

As indicated in previous settlement discussions, this section is presently under revision by OAM and as OAM has stated its intent to issue our Title V permit by the end of next year, ALCOA suggests this language (in Condition C.11) be deleted and we work toward a mutually acceptable arrangement during the Title V permit process.

Response 7: The following revisions have been made to the Compliance Monitoring Plan condition as follows:

C.8 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. **The compliance monitoring plan can be either an entirely new document, consisting of whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates, by reference, information contained in other documents, the Permittee shall identify, as part of the compliance monitoring plan, the documents in which the information is found. The elements of the** ~~This~~ compliance monitoring ~~plan is comprised of~~ **are**:

Comment 8: In C.14 [now C.11] (c)(2) and (4), IDEM has agreed to clarify this language to read as follows:

(2) All **media used for** ~~original strip chart~~ recording~~s~~ **data from** ~~for~~ continuous monitoring instrumentation;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. ~~To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.~~

Response 8: The following change shall be made to the permit to incorporate the electronic data for continuous emissions monitors:

(2) All **data, electronic or otherwise,** ~~original strip chart recordings~~ for continuous monitoring instrumentation;

IDEM acknowledges that the language contained in subsection (c)(4) arose from negotiations on a source specific nature. The language describes the records that would be potentially useful for the source to use under Section B.13, Emergency Provisions. If a permittee cannot demonstrate that an event qualifies as an emergency, then the affirmative defense cannot be claimed. The following change shall be made to the permit as follows:

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. ~~To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.~~

Comment 9: In D.1.6(e), this language may need to be modified pending the new Compliance Response Plan language.

Response 9: Changes listed in Response #6, eliminated language in the previous D.1.6(e).

Comment 10: In D.1.7, the second paragraph must be removed. There is no regulatory citation given that requires OAM approval of CAM equipment. Also, the carte blanch requirement of six month calibrations is arbitrary and capricious and in many instances is not necessary. For instance, if Alcoa chooses to utilize an oil incline manometer, it cannot be calibrated, as it is a calibration standard itself.

Response 10: See Response #6.

Comment 11: In D.1.8, this paragraph must be removed. There is no regulatory citation given that allows IDEM the authority to require such inspections. Also, daily visual checks, required by this permit, will indicate any problems with the operation of the baghouse and section D.1.9(a) requires action be taken if the daily visual check note abnormal emissions. Given these two requirements, what possible purpose could there be to require Alcoa to shut down my baghouse (and the sources it controls, pursuant to D.1.5) every quarter to check a baghouse that's being checked daily.

Response 11: See Response #6

Comment 12: In D.1.10(b)(1)(B), this must be removed. It is not necessary to measure this in order to monitor the total static pressure across the baghouse, which is what D.1.10(b) states as its goal.

Response 12: See Response #6

Comment 13: In D.1.10(b)(4)-(6), it is unclear whether these conditions refer to the baghouse or the pressure gauge. If it refers to the baghouse, condition (4) seems irrelevant and should be removed.

Response 13: See Response #6

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Part 70 Significant Source Modification.

Source Background and Description

Source Name:	ALCOA, Inc. - Warrick Operations
Source Location:	Junction State Routes 61 & 66, Newburgh, Indiana 47629-0010
County:	Warrick
SIC Code:	3334, 3352
Operation Permit No.:	T173-6627-00007
Operation Permit Issuance Date:	not issued yet
Significant Source Modification No.:	173-11342-00007
Permit Reviewer:	Kimberly Titzer

The Office of Air Management (OAM) has reviewed a modification application from ALCOA, Inc. - Warrick Operations relating to the construction of the following emission units and pollution control devices:

Alumina Handling System:

(1) The following emission units exhausting to Dust Collector 112A.1:
- (a) Enriched Alumina Truck Unloading (BL-08), with a maximum capacity of 60,000 pounds per hour;
- (b) Enriched Alumina Tank 151A Distribution Box (FM-15), with a maximum capacity of 200,000 pounds per hour;
- (c) Enriched Alumina Tank 151B Distribution Box (FM-16), with a maximum capacity of 200,000 pounds per hour;
- (d) Enriched Alumina Tank 151A Distribution Airslide (FM-13), with a maximum capacity of 160,000 pounds per hour;
- (e) Enriched Alumina Tank 151B Distribution Airslide (FM-14), with a maximum capacity of 160,000 pounds per hour;
- (f) Enriched Alumina Central Distribution Box (FM-12), with a maximum capacity of 160,000 pounds per hour;
- (g) Enriched Alumina B3/B4/B5/B6 Airslide (FM-11), with a maximum capacity of 160,000 pounds per hour;
- (h) Enriched Alumina Dense Phase Transporter (VS-01), with a maximum capacity of 14,000 pounds per hour;
- (i) Fresh Alumina Airslide (FM-01), with a maximum capacity of 200,000 pounds per hour;
- (j) Fresh Alumina Airslide (FM-02), with a maximum capacity of 200,000 pounds per hour;
- (k) Fresh Alumina Airlift (AE-01), with a maximum capacity of 200,000 pounds per hour;
- (l) Fresh Alumina Airlift (AE-02), with a maximum capacity of 200,000 pounds per hour

(2) The following emission units exhausting to Dust Collector 151.1:
- (a) B3/B4/B5/B6 Alumina Airlift Feed Box (FM-08), with a maximum capacity of 160,000 pounds per hour;
- (b) B3/B4/B5 Alumina Airslide (FM-06), with a maximum capacity of 120,000 pounds per hour;

(c) B3/B4 Alumina Airslide (FM-04), with a maximum capacity of 80,000 pounds per hour;
(d) B3/B4 Alumina Airslide (FM-03), with a maximum capacity of 80,000 pounds per hour;
(e) B5 Vibrating Screen (SC-01), with a maximum capacity of 40,000 pounds per hour;
(f) B5 Alumina Airlift (AE-04), with a maximum capacity of 40,000 pounds per hour;
(g) B5 Alumina Airslide (FM-07), with a maximum capacity of 40,000 pounds per hour;
(h) B6 Alumina Vibrating Screen (SC-02), with a maximum capacity of 40,000 pounds per hour;
(i) B6 Alumina Airlift (AE-03), with a maximum capacity of 40,000 pounds per hour;
(j) B6 Alumina Airslide (FM-05), with a maximum capacity of 40,000 pounds per hour

History

On September 13, 1999, ALCOA, Inc. - Warrick Operations submitted an application to the OAM requesting to replace the existing alumina handling system at their existing plant and replace the existing baghouse with a new baghouse and add another baghouse. At the time of this review, ALCOA, Inc. - Warrick Operations had not been issued a Part 70 Operating Permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Flow Rate (acfm)	Temperature (^{0}F)
112A.1	Baghouse	26,900ACFM	ambient
151.1	Baghouse	7,000ACFM	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 13, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 7).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as Athe maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.@

This table reflects the PTE before controls. Control equipment is not considered federally

enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	254.92
PM-10	greater than 100
SO_2	0
VOC	0
CO	0
NO_x	0

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification, because the potential to emit before controls is greater than twenty-five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(h). This approval is for the construction and operation of new emission units.

County Attainment Status

The source is located in Warrick County.

Pollutant	Status
PM-10	attainment
SO_2	unclassifiable
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Warrick County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
baghouse 112A.1	2.31	2.31					
baghouse 151.7	0.6	0.6					
PSD Limit	25.0	15.0					

This modification to an existing major stationary source is not major because the emissions are less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the alumina handling system shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The baghouses shall be in operation at all times the alumina handling system is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

(A) The alumina handling system has applicable compliance monitoring conditions as specified below:

(1) Visible Emissions Notations

(a) Daily visible emission notations of the baghouse stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(2) Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the alumina handling system, at least once weekly when the alumina handling system is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

(3) Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the alumina handling system when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(4) Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed

units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses for the alumina handling system must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No.173-11342-00007.

Appendix A: Emissions Calculations

PM emission calculations based on the grain loading of the dust collectors:

Dust Collector 112A.1:

E_{out} = [Outlet grain loading (gr/dscf)] [Air flow rate (dscfm)]

Outlet grain loading = 0.01 gr/dscf
Air flow rate = 26,900 acfm
efficiency = 95%

E_{out} = (0.01 gr/dscf)(26,900 acfm)
= 269 gr/minute
= (269 gr/min)(60 min/hr)(1 lb/ 7000 gr)
= 2.31 lbs/hr (10.11 tons/year) after controls

= (2.31 lbs/hr)(1/(1-0.95)
= 46.2 lbs/hr (202.36 tons/year) before controls

= (46.2 lbs/hr)(8760 hrs/yr)(1 ton/ 2000 lbs)
= ***202.36 tons of PM per year (potential to emit before controls)***

Dust Collector 151.1:

E_{out} = [Outlet grain loading (gr/dscf)] [Air flow rate (dscfm)]

Outlet grain loading = 0.01 gr/dscf
Air flow rate = 7,000 acfm
efficiency = 95%

E_{out} = (0.01 gr/dscf)(7,000 acfm)
= 70 gr/min
= (70 gr/min)(60 min/hr)(1 lb/ 7000 gr)
= 0.6 lbs/hr (2.63 tons/year) after controls

= (0.6 lbs/hr)(1/1-0.95)
= 12.0 lbs/hr (52.56 tons/year) before controls

= (12 lbs/hr)(8760 hrs/yr)(1 ton/ 2000 lbs)
= ***52.56 tons of PM per year (potential to emit before controls)***